





### **2014 Summer Preparedness**

Illinois Commerce Commission Electric and Gas Policy Session May 14, 2014



#### **Outline**

- Demand and Capability
- Delivery and Customer Response
- Energy Efficiency
- Gas / Electric Challenges
- Conclusions



#### **Peak Demand**

#### 2014

- Net peak demand forecast
  - 4,575 MW for normal weather
  - 4,881 MW for worst-case, extreme-weather forecast

#### 2013

- Actual net peak demand
  - 4,659 MW on August 28, 2013 (no load reductions due to direct load control and interruptible programs occurred at the time of the peak)

#### 2011

- All-time net peak demand
  - 4,752 MW on July 19, 2011



## **Reserve Capability**

#### 2014

- Normal weather demand: 4,575 MW
  - Reserve capability is 830 MW or 18.14%
- Extreme weather demand: 4,881 MW
  - Reserve capability is 524 MW or 10.74%

#### 2012

- Actual net peak demand: 4,659 MW
  - Reserve capability was 753 MW or 16.16%

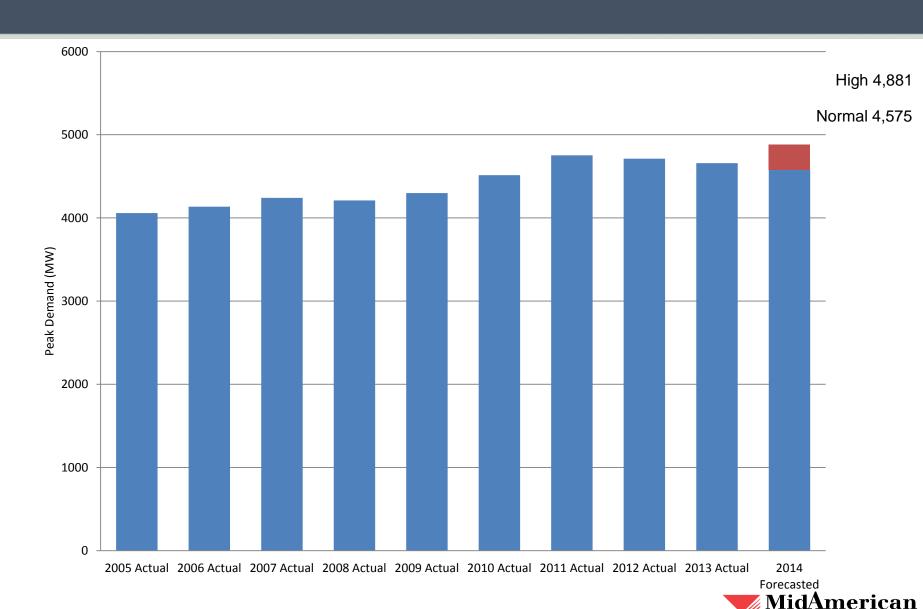


#### **Available Resources**

- Net capability: 5,405 MW
  - Owned generation: 5,395 MW
    - Coal, gas, nuclear, oil, wind, hydro
    - Large coal-fired units are jointly-owned with municipals and cooperatives
  - Purchases: 69 MW
  - Less sales to other utilities: 144 MW
- Demand-side management: 330 MW
  - Direct load control: 61 MW
  - Interruptible demand: 270 MW
    - Includes 85 MW with backup generation designated as capacity resources in MISO



### **Historic Peak Demand Forecasts**



6

# **Delivery and Customer Response**



## **Transmission Loading**

- MidAmerican expects its system to perform well
  - No facilities expected to load above normal ratings for system normal conditions at both expected system peak and worst case summer peak
  - No transmission or sub-transmission facilities expected to load above normal ratings for single contingency events
  - Operating procedures would be utilized to prepare for potential issues from certain double contingency events
    - MISO would use congestion management tools including re-dispatching generation and/or calling for transmission loading relief

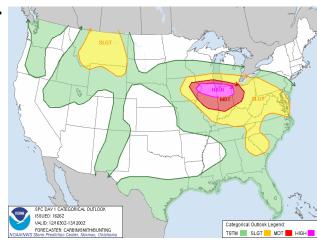
# **Adequate Transmission Capability**

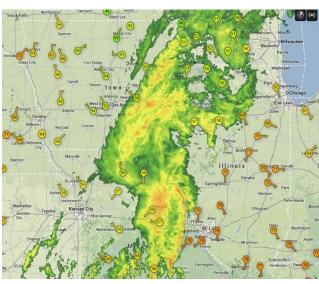
- MidAmerican does not expect any limitations on its ability to serve its customers or any ARES and RES customers for the summer of 2014
- MidAmerican continues to experience occasions of significant west to east flows across the transmission system
  - MISO flowgates in the Quad Cities and Galesburg areas limit transmission service reservations between Illinois and Iowa to reduce the possibility of overloading transmission facilities



## Storm Preparedness/Response

- Daily and extended forecasts monitored for severe weather threats (ice, wind, thunderstorms)
- Pre-storm calls held to discuss system risks based on forecast and appropriate measures
  - Additional on-call crews, standby crews and remote contract resources contacted
- Radar monitored 24x7 by electric system operators for approaching weather threats
- Additional positions added based on post storm reviews & lessons learned
  - Emergency Preparedness Manager
  - Distribution Control Training Coordinator
  - 6 additional Distribution Operators







### Storm Preparedness/Response

- Pending magnitude and scope of impacts, initiate one or more of the following:
  - Local and remote storm centers opened to dispatch field resources
  - Remote company field resources and contract resources dispatched to impacted areas
  - Wire watchers and wire clearing crews (based on volume of wire down calls)
  - Request Mutual Assistance, Berkshire Hathaway Energy resources for major events
- Status calls throughout event to assess progress, resource needs and to communicate estimated time of restoration
- Post storm reviews/lessons learned updates to policies and procedures



# Outage Communications

- MidAmerican delivers outage communication through a variety of sources:
  - Radio and television advertising
  - Social media: safety tips and real-time outage tips
  - Earned media: safety news releases and live interviews
  - Web communications: safety tips and information
  - Outage Watch web page being updated, includes availability of individual outage information after login
- Who to Call information is provided during outages:
  - Front page of <u>www.midamericanenergy.com</u>
  - Listed in all news releases and key messages during interviews
- During significant outages and storms, MidAmerican buys real-time advertising to warn of the down-line dangers and who to call if someone encounters a downed line



## Vegetation Management

- Three year trim cycle for distribution system clearances
- Annual electric transmission inspection and remediation program
- Spring and fall bill insert safety messages
- 17.7% of all Illinois customer outage minutes in 2013 were tree related (excludes major storm events)
  - Customer outage minutes due to trees were down 10.9% in 2013 compared to 2012



#### **NESC Corrective Action Plan**

- In June 2008, per ICC order, MidAmerican initiated a 4-year inspection program of all circuits to identify issues with the National Electrical Safety Code guidelines
- All NESC inspections were completed in December 2011, and all issues on company-owned equipment were corrected by the end of 2012
- During the inspections, MidAmerican also discovered 7,030 instances where the attachment point for customer-owned electrical equipment would have to be changed to meet NESC guidelines
- Currently 6,756 customer issues have been resolved
- MidAmerican's goal is to have all of the customer-owned issues resolved by the end of 2014
- MidAmerican is inspecting all distribution circuits on a 4-year cycle

# **Energy Efficiency**



## **Energy Efficiency**

- New Five-year energy efficiency plan for Illinois approved Jan 1, 2014 December 31, 2018
- Most costs are recovered via an energy efficiency adjustment clause – now shown separately on customers' bill
- In 2013, 4,705 unique bill accounts received rebates totaling \$2,344,018
- Total Illinois spending in 2013 was ~ \$3.5 million
- Gross Illinois savings in 2013 were:
  - 5,876 MWh and 18 MW for electric demand
  - 316,611 therms and 2,665 peak therms for gas



# Gas / Electric Challenges



# Gas / Electric Challenges

- This winter managed with coal and wind resources, future years will be more dependent on gas; infrastructure reliance
- MidAmerican will continue to maintain firm pipeline capacity contracts for its combined cycle generation
- Increased storage injections required for the coming winter
- New gas fired generation may require substantial interstate pipeline investments



#### **Conclusions**

- Load and Capability
  - 2014 reserves nearly 11% for extreme weather conditions
- Delivery and Customer Response
  - Transmission ratings, operating procedures and contingency planning in place; vegetation management program working
- Energy Efficiency
  - Five year plan in place; separate item noted on customers bills
- Gas / Electric Challenges
  - This winter managed with coal and wind resources, future years will be more dependent on gas; infrastructure reliance
  - Firm pipeline contracts will continue
  - Increased storage injections required for the coming winter









